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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/031,108	02/26/98	BARANDA	P OT-4190

PM82/0802
RANDY G HENLEY
OTIS ELEVATOR COMPANY
INTELLECTUAL PROPERTY DEPARTMENT
10 FARM SPRINGS
FARMINGTON CT 06032

EXAMINER

TRAN, T

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 08/02/00

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/031,108

Applicant(s)
Baranda et al.

Examiner
Thuy V. Tran

Group Art Unit
3652



☒ Responsive to communication(s) filed on May 12, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2-14, 16-22, and 66-75 is/are pending in the application.

Of the above, claim(s) 21 and 22 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2-14, 16-20, and 66-75 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

1. The previous Final Rejection dated September 24, 1999 is hereby withdrawn in view of the following Office action.

Election/Restriction

2. Upon further review, this application contains claims directed to the following patentably distinct species of the claimed invention: Species I, Figure 6a; Species II, Figure 6b; Species III, Figure 6c; and Species IV, Figure 6d.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, at least claim 4 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to

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be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. During a telephone conversation with Mr. Randy G. Henley on July 19, 2000 a provisional election was made with traverse to prosecute the invention of Species I, claims 2-14, 16-20, and 66-75. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21 and 22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Claim Rejections - 35 USC § 112

5. Claims 11, 68 and 73 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 11, 68 and 73 separately recites the limitations "a sheave having non-linear engagement surface". This limitation was not disclosed in the disclosure because a "linear engagement surface" would includes all of the disclosed engagement surfaces, namely

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Figures 2-5. In order to facilitate prosecution, the above mentioned limitations will be examined as a sheave having a "contoured" engagement surface as disclosed in Figure 5.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2, 5-14, 16-20, 66, 68-70 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 49-20811 B.

JP '811 discloses a tension member for providing a lifting force comprising a plurality of individual load carrying ropes 1 formed from strands of metallic material, an elastomer coating layer retaining each of the ropes to block the occurrence of differential motion and to form an engagement surface defined by a width dimension of the tension member. The tension member has an aspect ratio, defined as the ratio of the width relative to a thickness (w/t) measured in the bending direction, of greater than two.

7. Claims 2, 5-11, 13, 14, 16, 18-20, 66 and 68-70 are rejected under 35 U.S.C. 102(b) as being anticipated by SU 505,764 A.

SU '764 discloses a tension member for providing a lifting force comprising a plurality of individual load carrying ropes 1, a coating layer 4 formed from an elastomer to separating, blocking the occurrence of differential motion of the individual ropes, and defining the engagement surface for engaging the traction sheave. The tension member has an aspect ratio (w/t) of greater than two.

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8. Claims 2, 5-10, 13, 14, 16, 18-20, 66, 69-71, 74 and 75 are rejected under 35

U.S.C. 102(b) as being anticipated by GB 2,162,283 A.

GB '283 discloses an elevator system having a car, a sheave, and a flat tension member, Figure 3, engaged with the traction sheave to provide a lifting force for the car. The tension member comprises a plurality of individual load carrying ropes, a coating layer separating, blocking the occurrence of differential motion of the individual ropes, and defining the engagement surface for engaging the sheave. The engagement surface is formed from an elastomer. The tension member has an aspect ratio (w/t) of greater than two.

9. Claims 2-10, 13, 14, 16, 18-20, and 66, 67, 69-72, 74 and 75 are rejected under 35

U.S.C. 102(b) as being anticipated by GB 2,134,209 A.

GB '209 discloses an elevator system comprising a car (see page 1, lines 6-9 and Figure 11), a sheave, a tension member having an aspect ratio (w/t) of greater than two. The tension member comprises a plurality of individual load carrying ropes formed from strands of non-metallic material (page 1, lines 60-63) and encased within a common layer of elastomer coating which defines an engagement surface for engaging the sheave.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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11. Claims 3, 4, 67 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB-2162283 A in view of either Gladenbeck et al. 4,022,010 or Wilcox 4,624,097.

GB '283 discloses an elevator system having a car, a sheave, and a flat tension member, Figure 3, engaged with the traction sheave to provide a lifting force for the car. The tension member comprises a plurality of individual load carrying ropes, a coating layer separating, blocking the occurrence of differential motion of the individual ropes, and defining the engagement surface for engaging the sheave. The engagement surface is formed from an elastomer. The tension member has an aspect ratio (w/t) of greater than two.

Gladenbeck et al. '010 and Wilcox '097 separately teaches a tension member for used in an elevator system formed from strands of non-metallic material to provide a high-strength rope with good flexibility.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a plurality of individual load carrying ropes formed from strands of non-metallic material for the tension member of GB '283 as taught and suggested by Gladenbeck et al. '010 and Wilcox '097 in order to provide a tension member with high strength to the weight characteristics as well as good flexibility.

12. Claims 3, 4 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 49-20811 B in view of either Gladenbeck et al. 4,022,010 or Wilcox 4,624,097.

JP '811 discloses a tension member for providing a lifting force comprising a plurality of individual load carrying ropes 1 formed from strands of metallic material, an elastomer coating

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layer retaining each of the ropes to block the occurrence of differential motion and to form an engagement surface defined by a width dimension of the tension member. The tension member has an aspect ratio, defined as the ratio of the width relative to a thickness (w/t) measured in the bending direction, of greater than one.

Gladenbeck et al. '010 and Wilcox '097 separately teaches a tension member for used in an elevator system formed from strands of non-metallic material to provide a high-strength rope with good flexibility.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tension member of JP '811 comprising a plurality of individual load carrying ropes formed from strands of non-metallic material as taught and suggested by Gladenbeck et al. '010 and Wilcox '097 in order to provide a tension member having high strength to the weight characteristics as well as good flexibility.

13. Claims 3, 4 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over either SU 505764 A or GB 2,162,283 A in view of either Gladenbeck et al. 4,022,010 or Wilcox 4,624,097.

SU '764 and GB '283 separately discloses a tension member for providing a lifting force comprising a plurality of individual load carrying ropes, an elastomer coating layer retaining each of the ropes to block the occurrence of differential motion and to form an engagement surface defined by a width dimension of the tension member. The tension member has an aspect ratio, defined as the ratio of the width relative to a thickness (w/t) measured in the bending direction, of

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greater than one. SU '764 and GB '283 lack of showing load carrying ropes formed from strands of non-metallic material.

Gladenbeck et al. '010 and Wilcox '097 separately teaches a tension member for used in an elevator system formed from strands of non-metallic material to provide a high-strength rope with good flexibility.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tension member of SU '764 and GB '283 comprising a plurality of individual load carrying ropes formed from strands of non-metallic material as taught and suggested by Gladenbeck et al. '010 and Wilcox '097 in order to provide a tension member having high strength to the weight characteristics as well as good flexibility.

14. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over either GB 211512A or Aulanko et al. 5,429,211 or Randazzo et al 5,792,294 in view of JP 49-20811 and further in view of either Gladenbeck et al. 4,022,010 or Wilcox 4,624,097 .

Each of the GB '512, Aulanko et al. '211 and Randazzo et al. '294 separately discloses an elevator system including a car, a traction sheave and a plurality of individual load carrying ropes.

JP '811 discloses a tension member for providing a lifting force comprising a plurality of individual load carrying ropes 1 formed from strands of metallic material, an elastomer coating layer retaining each of the ropes to block the occurrence of differential motion and to form an engagement surface defined by a width dimension of the tension member. The tension member

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has an aspect ratio, defined as the ratio of the width relative to a thickness (w/t) measured in the bending direction, of greater than one.

Gladenbeck et al. '010 and Wilcox '097 separately teaches a tension member for used in an elevator system formed from strands of non-metallic material to provide a high-strength rope with good flexibility.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the flat tension member of JP '811 for the elevator system of either GB '512, Aulanko et al. '211 or Randazzo et al. reference in order to prevent back-twisting tendency of the individual load carrying ropes.

It would have been obvious to one having ordinary skill in the art to further utilize the strands of non-metallic ropes for the flat tension member of the modified elevator system of either GB '512, Aulanko et al. '211 or Randazzo et al as taught and suggested by either Gladenbeck et al. or Wilcox reference in order to provide a high-strength rope with good flexibility.

15. Claims 70, 71 and 73-75 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2,127,934 A in view of JP 49-20811 B.

GB '934 discloses an elevator system including a car 1, a traction sheave having a "contour" engagement surface 15G, and a plurality of individual load carrying ropes 3.

JP '811 discloses a flat tension member for providing a lifting force comprising a plurality of individual load carrying ropes 1 formed from strands of metallic material, an elastomer coating layer retaining each of the ropes to block the occurrence of differential motion and to form a

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contoured engagement surface defined by a width dimension of the tension member. The tension member has an aspect ratio, defined as the ratio of the width relative to a thickness (w/t) measured in the bending direction, of greater than one.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the flat tension member for the GB '934 as taught by JP '811 in order to prevent back-twisting tendency of the individual load carrying ropes.

Conclusion

16. Applicant's amendment (paper No. 8) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy v. Tran whose telephone number is (703) 308-2558.

TVT (TVT)

July 27, 2000


ROBERT P. OLSZEWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600